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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,333	06/06/2001	Jose A. Olivares	4250.2.10	7518

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EXAMINER 3

OLSEN, KAJ K

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/875,333

Applicant(s)

OLIVARES ET AL.

Examiner

Kaj Olsen

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1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references listed under "Foreign Patent Documents" on the IDS have been crossed off because the applicant did not provide these patent documents. Applicant only provided English abstracts for those document. Abstracts alone should be listed under "Other Documents" instead.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 7, 16, 25, 28, 29 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 7, 16, 25, 29, and 37 utilize abbreviations and these abbreviations should be explicitly written out.
5. Claim 28 is dependent off of a claim that follows it (i.e. claim 29), whereas it appears to the examiner that this claim should be dependent off of claim 26 (which first discloses the optical fiber). For the purpose of applying prior art, the examiner will interpret claim 28 as being dependent off of claim 26, but clarification and correction is requested.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, 20, 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Rajasekaran (USP 5,384,022).

8. Rajasekaran discloses a sample collection device comprising a detection zone 26 within the slab gel, a detector for detecting a sample of interest within the detection zone (col. 2, lines 56-59) and a collector for collecting the detected sample of interest (col. 3, lines 57-59).

9. With respect to the method claims (those limitations not already covered above), Rajasekaran also discloses obtaining a sample of interest and loading that sample into a lane of a gel electrophoresis system (col. 2, lines 20-34).

10. Claims 1, 2, 4-6 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Allington (USP 3,791,950).

11. Allington discloses a sample collection device for use with slab gel electrophoresis. Said device comprises a detection zone 62, a detector for detecting a sample of interest within the detection zone (col. 9, lines 33-57), and a collector (fig. 4) for collecting the detected sample. Although Allington does not explicitly disclose the detection zone being “within the slab gel”, the slab gel is not part of the claimed invention (i.e. the preamble states the collection device is only for use with a slab gel), and where the detection zone is precisely located is only the

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intended use of the apparatus and the intended use need not be given further due consideration in determining patentability.

12. Allington further discloses the use of a syringe 84 configured to pump fluid into the detection zone for collecting the sample in question (paragraph bridging col. 12 and 13).

Although Allington does not explicitly recite that fluid as being a buffer solution, the claims only require the syringe to be capable of directing buffer solution, which the syringe of Allington would be capable of doing (however, see alternative rejection below).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 3 and 7 (and claims 5 and 6 in the alternative) are rejected under 35 U.S.C. 103(a) as being unpatentable over Allington in view of Lim et al (USP 5,284,559).

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16. Allington set forth all the limitations of the claims, but didn't explicitly recite the use of buffer solution for the gel free zone or syringe pump. Lim teaches in an alternate slab gel configuration for collecting sample that a buffer is a conventional fluid for the collecting of sample (paragraph bridging col. 4 and 5). Buffers particularly provide pH stability as well as provide suitable electrical conductivity needed for supporting electrophoresis and it would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Lim for the collection device of Allington in order to provide pH stability and suitable electrical conductivity.

17. With respect to the particular buffer of claim 7, those are conventional buffers in the art and their use here requires only routine skill in the art.

18. Claims 8-19, 21, 24, 26-30 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajasekaran in view of Waterhouse et al (USP 6,005,663).

19. Claims 8-19, 21-24 and 26-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allington in view of Waterhouse '663.

20. Rajasekaran and Allington set forth all the limitations of claim 8, 21, and 34-37 (those limitations not covered above for claim 1), but did not explicitly disclose the use of a fluorescent tag for the sample of interest. Both Rajasekaran and Allington appear to rely on traditional staining techniques. However, the use of fluorescent tags is a conventional means for monitoring the location of sample bands in gel electrophoresis. In particular, Waterhouse teaches the use of fluorescent tags, which allow one to detect signals in real time as well as improve the sensitivity and selectivity of the sample detection (col. 1, line 56 through col. 2, line 34). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize

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the teaching of Waterhouse for the sample collection device of Rajasekaran and Allington in order to allow sample detection in real time and increase the sensitivity and selectivity of the sample detection.

21. With respect to claims 31-37 and Allington (those limitations not covered above), Waterhouse discloses placing the detection zone within the gel being monitored (see fig. 1), which facilitates the real time monitoring of the gel.

22. With respect to the use of lasers, optical fibers, optical filters, and low level light detectors, see Waterhouse, col. 6, lines 53-64 and col. 7, line 64 through col. 8, line 44.

23. With respect to scanning the laser and imbedding the optical fiber into the gel, that is only the intended use of the collection device and the intended use need not be given further due consideration in determining patentability.

24. With respect to the particular combination of notch and band pass filters, both kinds of filters are notoriously well known in the art and their use at the time of the invention requires only routine skill in the art. Similarly, finding the particular band pass region that balances sensitivity with selectivity also requires only routine skill in the art.

25. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rajasekaran or Allington with Waterhouse as applied to claim 21 above, and further in view of Ramsey et al (USP 6,056,859).

26. The references set forth all the limitations of the claim, but did not explicitly recite the use of fluorescent tags from the provided list. However, Ramsey teaches that Pico Green is a conventional fluorescing dye known in the art (col. 4, lines 42-48). It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching

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of Ramsey for the sample collection device of Rajasekaran or Allington in view of Waterhouse because the substitution of one known fluorescing tag for another known fluorescing tag requires only routine skill in the art.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number form after-final communications is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.



Kaj K. Olsen  
Patent Examiner  
AU 1753  
9/24/03